Keystone and the tipping point away from fossil fuels

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Last spring when the U.S. State Department Final Environmental Impact Statement (EIS) on Keystone XL was released, it was heralded by project boosters as the green light to approval. It was actually more of a flashing yellow.

The EIS was dense and lengthy. It was a policy wonkish document. When the NEB report on Enbridge came out I couldn't help but to contrast the approach taken by two different nations and their regulators. The NEB produced a PR document — complete with pretty pictures, but with a dearth of evidence — to boost a foregone conclusion: the NEB would approve the Enbridge pipeline. As I plowed through the EPA advice to State Department on Keystone, it was equally clear that there was no foregone conclusion. Secretary of State John Kerry could go either way in his advice to the U.S. President.

Last year, Joe Oliver and Gary Doer should have read the EPA report before praising it. Had they done so, they might have noticed the finding that Keystone would not boost GHG only if the price of a barrel of oil remained above $100. If prices dropped to $80/barrel the report found that building Keystone would boost oil sands expansion and thus be a significant contributor to global warming. Gary Doer's recent attack on the EPA was shockingly undiplomatic. Suddenly the same report he once praised, he attacked as dishonest. I wonder if being Canada's Ambassador to the United States is really worth Gary Doer's loss of personal integrity. It must be humiliating to berate the U.S. Secretary of State claiming the EPA "ignores a decade of Canadian achievement in cutting greenhouse gas emissions," when the EPA report had not ignored the evidence. It cited Environment Canada statistics that confirmed Canada would entirely miss our Copenhagen target.

Meanwhile, some other energy prices are tumbling with less notice. For global energy watchers there is game-changing news in the plummeting price of wind and solar. Several international reports this fall analyzed the levelized cost of energy. Reports from the International Renewable Energy Agency (IRENA), investment bank Sanford Bernstein, and financial firm Lazard came to a remarkably similar conclusion: in some regions renewable energy is now competitive with fossil fuels.

The "levelized cost" is a measurement based on the ratio of the lifetime costs of a power plant to the amount of electricity it will generate. The levelized cost factors in all costs – construction, fuel, financing, etc. It does not include subsidies. The drastic drop in the price of renewable energy, particularly solar, is big news. The cost of solar has dropped as much as 60% in only the last five years. In parts of the U.S. solar is already competitive with fossil fuels.

There are caveats of course. It is still cheaper to keep an existing coal plant running than build a new solar or wind facility, but the fact remains that in some regions, including in South East Asia, the cost of solar is competitive with the cheapest and dirtiest of fossil fuels – coal.

The impact globally of cheap wind and solar is still relatively small. But the smart money is looking at what happens in a decade.

Bernstein explained, "…we have previously calculated how large the solar sector would need to be in order to become a material share of incremental energy supply each year and therefore begin to displace high-cost oil and gas supply and start to depress prices."

"We estimate that the solar industry would need to be an order of magnitude larger than it is today to have this kind of impact. At the point where solar is displacing a material share of incremental oil and gas supply, global energy deflation would become inevitable: technology (with a falling cost structure) would be driving prices in the energy space. But even on an aggressive view, this could take the better part of a decade."

Bernstein notes that within a decade, solar could drive down demand for LNG from China and the rest of Asia and depress demand for natural gas in the US, Europe and Australia. And he points out the obvious. When large energy multinationals see this shift as inevitable, they won't wait until they are hemorrhaging profits from unwanted fossil fuel production: they will switch to cheaper renewables.

Last year was the first year in which global investment in renewable energy was larger than investment in fossil fuels. We are nearing the tipping point. So while our prime minister shills for a pipeline to the Gulf of Mexico to ship out unprocessed bitumen, global investors are shifting their bets. Canada is the only country on earth not a member of the International Renewable Energy Agency. Maybe Harper and company haven't noticed these reports. Maybe Christy Clark hasn't realized the long-term bet on LNG is a bad bet for BC. But Canadians better start noticing that betting on fossil fuels is not only stoking the furnace on future climate disasters; in purely economic terms, it's stupid.

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